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 TI - ION OPTICAL SYSTEM OF TIME-OF-FLIGHT MASS SPECTROMETER
 FI - G01N27/62&K ; H01J49/06 ; H01J49/40
 PA - JEOL LTD
 IN - ISHIHARA MORIOMATSUO TAKEKIYO
 AP - JP19980292699 19981015
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 TI - Ion optical system for time-of-flight mass spectrometer - has four sector electric fields of identical electric field such that closed orbit is crossed by intersection point
 AB - JP11195398 NOVELTY - Four sector electric fields (2-5) are combined which are respectively distributed by surface symmetry about symmetrical plane. The closed orbit is crossed by intersection point (C). The sector electric field (3) is distributed by double symmetrical concern. The electric field in all the sectors is made identical.
 - USE - In time-of-flight mass spectrometer.
 - ADVANTAGE - Fulfills space convergence and time convergence conditions completed by distributing sector electric fields to duplication symmetry. DESCRIPTION OF DRAWING(S) - The figure shows example of ion optical system (2-5) Sector electric fields; (B) Closed orbit; (C) Intersection point.
 - (Dwg.1/14)
 IW - ION OPTICAL SYSTEM TIME FLIGHT MASS SPECTROSCOPE FOUR SECTOR ELECTRIC FIELD IDENTICAL ELECTRIC FIELD CLOSE ORBIT CROSS INTERSECT POINT
 IC - G01N27/62 ; H01J49/06 ; H01J49/40
 MC - S03-E10A3 V05-J01A1 V05-J01G V05-M04A
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 TI - ION OPTICAL SYSTEM OF TIME-OF-FLIGHT MASS SPECTROMETER
 AB - PROBLEM TO BE SOLVED: To satisfy required space convergence conditions and time convergence conditions in an ion optical system of a time-of-flight mass spectrometer.
 - SOLUTION: Four sector-shaped fields are combined to form an ion optical system of a closed track. The four sector-shaped fields are disposed to be surface-symmetric to a symmetric surface, and a closed track crossing at an intersection C is composed. By setting all the four sector-shaped fields to be similar to each other, and disposing them in double symmetry, the ion optical system to completely satisfy space convergence conditions and time convergence conditions can be realized.
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(54) 【発明の名称】 飛行時間型質量分析計のイオン光学系

(57) 【要約】

【課題】飛行時間型質量分析計のイオン光学系において、要求される空間収束条件および時間収束条件を満たす。

【解決手段】4つの扇形電場を組み合わせて閉軌道のイオン光学系が構成される。4つの扇形電場はそれぞれ対称面に関して面対称に配置されて、交点Cで交差する閉軌道6が構成される。4つの扇形電場をすべて同一にし、二重対称に配置することにより、空間収束条件および時間収束条件を完全に満たすことのできるイオン光学系が実現できる。

